Incident Action Plan



Mitigation and Cleanup



January 7, 2017 – January 18, 2017 08:00 – 17:00 Daily







INCIDENT OBJECTIVES (ICS 202)

1. Incident Name: (b) (6) Mitigation and Cleanup	2. Operational Period:	Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00
3. Objective(s):			
- Provide safe working environment for all involved pers	ons on scene		
- Ensure site is secure			
- Create containment and isolation area for product dea	ctivation and storage		
- Develop cleanup plan to include air monitoring			
- Provide residential and perimeter monitoring			
- Decontamination procedures based on Weevil-Cide pr	roduct manual		
- Deactivation of partially spent residual dust from Week	vil-Cide pellets		
- City of Amarillo (COA) Departments of Environmental	Health (EH) and Building Safety	(BS) will make final decision for	or habitation of residence
- Mattresses, couches, love seat and any bedding poter	ntially contaminated with Bovitra	z insecticide will be removed in	consultation with COA EH
- Air monitoring for seven (7) cumulative days at temper sampling.	ratures over 50 degrees F or ab	ove with a reading of 0.0 ppm n	nust be achieved before final
- Sampling plan will be developed by Texas Commissio Department of State Health Services (TDSHS), Bi-City- (OEM) and Public Health (PH)	n on Environmental Quality (TC County Health Authority, and the	EQ), Environmental Protection e COA Departments of EH, Offi	Agency (EPA), Texas ce of Emergency Management
- After reviewing sampling results, the COA EH will dete	ermine if site can be turned over	to the City to authorize rehabits	ation
4. Operational Period Command Emphas	is:		
- Scene Safety for personnel working in the affected loc	eation		
- Safety for general public and residence in the immedia	ate area		
- Containment of product			
General Situational Awareness			
- Weather will be cool to cold - Moisture causes product release			
5. Site Safety Plan Required? Yes 🗌 No			
Approved Site Safety Plan(s) Located			
6. Incident Action Plan (the items checked			
☑ ICS 202 ☑ ICS 206		Other Attachments:	
✓ ICS 203 ☐ ICS 207		SDS	
✓ ICS 204 ✓ ICS 208		⊔ <u></u>	
☐ ICS 205 ☑ Map/Chart	:ast/Tides/Currents	□ 	1//
✓ ICS 205A ✓ Weather Forect 7. Prepared by: Name: Theresa West	Position/Title: SITL	Signatur	a morera lix
8. Approved by Incident Commander: Na	1 7 7 1		Was E. So.
ICS 202 IAP Page _ [Date/Time:		The state of
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	Vauld)	Durst De	1/ X)~

ORGANIZATION ASSIGNMENT LIST (ICS 203)

3. Incident Commander(s) and Command Staff:		7. Operations Section:			
IC/UCs	Jhana Enders (EPA)		Chief	Jose Ojeda	Gary Smith
	David Durst (TCEQ)		Deputy		
	Chip Orton (COA)				
Deputy	Eddy Vance (TCEQ) & Sh	aun May (COA)	Staging Area	Matthew Shockey	
Safety Officer	UCs will serve as Agency	Safety Officers	Branch	Police	
Public Info. Officer	Jesse Patton (COA)		Branch Director	Lt. Gary Trupe	Lt. Bohannon
Liaison Officer			Deputy		
4. Agency/Organ	ization Representati	ves:	Division/Group	Sgt. Chester	Corp. Ed Carroll
Agency/Organization			Division/Group		
			Branch		
			Branch Director		
			Deputy		
5. Planning Secti	on:		Division/Group		
	Chief Capt. Justin Davis		Division/Group		- 1
De	puty Brad Britten		Division/Group		
Resources	Unit		Division/Group		
Situation	Unit Theresa West		Division/Group		
Documentation	Unit		Branch		
Demobilization	Unit		Branch Director		
Technical Specia	ilists		Deputy		
			Division/Group		
			Division/Group		
	-7 -		Division/Group		
6. Logistics Sect	ion:		Division/Group		
	Chief		Division/Group		
De	puty		Air Operations Bran	nch	
Support Bra	inch		Air Ops Branch Dir.		
Dire	ector				
Supply	Unit				
Facilities	Unit		8. Finance/Admin	istration Section:	
Ground Support			Chief		
Service Bra			Deputy		
Dire	ector		Time Unit		
Communications	Unit		Procurement Unit		
Medical	Unit		Comp/Claims Unit		
Faad	Unit		Cost Unit		0

ASSIGNMENT LIST (ICS 204)

1. Incident Name: Date From: 1-7-2017 Time From: 08:00 2. Operational Period: Date To: 1-18-2017 Time To: 17:00			3. Branch:		
4. Operations Perso	Hazmat Division:				
Operations Section (
					Group:
Branch Dire	ector:				Staging Area:
Division/Group Supe	rvisor:				
5. Resources Assigned: 🙎					Reporting Location,
Resource Identifier	Leader		# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Special Equipment and Supplies, Remarks, Notes, Information
EPA Contractor	Jose Ojec	la	1	Oscar Garcia 956-909-4311	
EPA Contractor	Jose Ojec	la	1	Sean Hettinger 609-666-9608	
TCEQ Contractor	Gary Smit	th	1	Cameron Enders	
TCEQ Contractor	Gary Smit	h	1	Cody Wilson	
TCEQ Contractor	Gary Smit	th	1	Jeffery Juerez	
Weston Solutions (EPA Co Air Monitoring & Samp SWS Environmental (TCE Remediation of partial	oling) dual dust fron	n Weevil-Cide		
7. Special Instruction	ons:				
Stay safe, operate smart. Recon Property to assess Entry will be made in acco			EQ policies and	d procedures.	
		variation of the			
Name/Function			Primary Co	mbers needed for this assignment): ontact: indicate cell, pager, or radio (f utions 619-417-3298	requency/system/channel)
Name/Function Jose Ojeda	(EPA Contr	actor)	Primary Co Weston Solu		requency/system/channel)
Name/Function	(EPA Contr	actor)	Primary Co Weston Solu	ontact: indicate cell, pager, or radio (f utions 619-417-3298	requency/system/channel)
Name/Function Jose Ojeda	(EPA Contr	actor)	Primary Co Weston Solu	ontact: indicate cell, pager, or radio (f utions 619-417-3298	requency/system/channel)
Name/Function Jose Ojeda	(EPA Contr (TCEQ Con	actor)	Primary Co Weston Solu SWS Enviro	ontact: indicate cell, pager, or radio (f utions 619-417-3298 nmental 817-829-5302	requency/system/channel)

ASSIGNMENT LIST (ICS 204)

1. Incident Name: (b) (6) Mitigation and Clean	nup		ational Pom: 1-7-20 om: 08:00		3. Branch:
4. Operations Persor	nel: Nam	<u>e</u>		Contact Number(s)	Police Division:
Operations Section C	1.7.1.1.1				
					Group:
Branch Dire	Branch Director: Potter County Sheriff Office (PCSO) Sgt Chester			PCSO) Sgt Chester	Staging Area:
Division/Group Supervisor:					Otaging Area.
5. Resources Assign	ed:		S		Reporting Location,
Resource Identifier	Leader		# of Persons	Contact (e.g., phone, pager, radio frequency, etc.)	Special Equipment and Supplies, Remarks, Notes, Information
Amarillo Police Dept (APD)	Lt. Bohanno	1	1	Corp Ed Carroll, 806-378-9449	Crime Scene Investigation (CSI)
6. Work Assignment: Scene security. Crime Scene Investigation (
7 Charles Instruction			_		
 Special Instruction Stay safe, operate smart 	15.				
and and opposite and					
8. Communications (radio and/o	or phone co	ntact nur	mbers needed for this assignment):	
Name/Function	A MARINA			ontact: indicate cell, pager, or radio (f	requency/system/channel)
Lt. Gary Trupe / S	Scene Securit	y 8	06-678-397	5, gary.trupe@amarillo.gov	
Lt. Erick Bohannon / (CSI			88, eric.bohannon@amarillo.gov	
Sgt. Chester / t	CSI	8	06-584-519	91 (c), 806-378-9450 (o), bj.chester@amarillo.g	ov
1					
					M M
9. Prepared by: Nam	ne: Theresa	West	Posi	ition/Title: SITL Signa	ature: Muren Aust

COMMUNICATIONS LIST (ICS 205A)

1. Incident Name: (a) (b) Mitigation and Cleanup		2. Operational	Period:	Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00	
3. Basic Local Communication	ns Informati	ion:				
Incident Assigned Position	Name (Alphabetized)		Method(s) o (phone, pager		
Unified Command - EPA	Jhana Enders	- US EPA	214-789-	9654, enders.jhana@epa.go	V	
Jnified Command - TCEQ	David Durst -	TCEQ	806-570-	5013, david.durst@tecq.texa	s.gov	
Jnified Command Deputy - TCEQ	Eddy Vance -	TECQ	806-670-	2598, eddy.vance@tecq.texa	as.gov	
Jnified Command - COA	Chip Orton - 0	DEM	806-333-	4800, chip.orton@amarillo.go	ov	
Unified Command Deputy - COA	Shaun May -	Environmental Health	850-787-	1778, shaun.may@amarillo.ç	gov	
Public Information Officer - COA	Jesse Patton		806-881-	8235, jesse.patton@amarillo	.gov	
Staging Area Manager - TCEQ Contract	Matthew Sho	ckey - SWS Environ.	817-829-	8855, mshockey@swses.cor	n	
Operations (HazMat) - TCEQ Contractor	Gary Smith -	SWS Enviromental	817-829-	5302, gsmith@swses.com		
Operations (HazMat) - EPA Contractor	Jose Ojeda -	Weston Solutions	619-417-	3298		
CEQ Contractor	Cameron End	ders - SWS Environ.				
CCEQ Contractor	Jeffery Juere:	z - SWS Environ.				
CEQ Contractor	Cody Wilson	- SWS Environ				
EPA Contractor	Oscar Garcia	Oscar Garcia - Weston Solutions		956-909-4311		
EPA Contractor	Sean Hettinge			609-666-9608		
Operations (Police) - COA Security	Lt. Gary Trup	Lt. Gary Trupe - APD		3975, gary.trupe@amarillo.g	ov	
Operations (Police) - COA CSI	Lt. Erick Boha	Lt. Erick Bohannon - APD		806-378-4268, eric.bohannon@amarillo.gov		
Operations (Police) - PCSO CSI	Sgt. BJ Chester-Potter County SO		806-584-5191(c), 806-378-9450 (o), bj.chester@amarillo.gov			
Operations (Police) - COA CSI	Corp. Ed Car	Corp. Ed Carroll - APD		806-378-9449, edward.carroll@amarillo.gov		
Planning Section Chief - COA		Justin Davis - AFD		806-676-2896, justin.davis@amarillo.gov		
Deputy PSC - COA	Brad Britten -	OEM	806-683-	4481, brad.britten@amarillo.	gov	
Situation Unit Leader - COA	Theresa Wes	12-11-12-11-11-11-11-11-11-11-11-11-11-1	A TOTAL TOTAL STATE OF	9362, theresa.west@amarillo		
4. Prepared by: Name: Theresa	a West	Position/Title	SITL	Signatu	re: Maren Olu	

MEDICAL PLAN (ICS 206)

1. Incident Name: b) (6) Mitigation and Cleanup		2. Operational P		Date From: Time From:		Date To: 1-18-2017 Fime To: 17:00		
3. Medical Aid S	Stations:							
News			Unication			ontact		medics Site?
Name		Location		Number(s)/Frequency	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	s \square No	
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		+		_			10_0.00	s 🗌 No
Ora -		1					∐ Ye	s 🗌 No
4. Transportation	on (indicat	e air or ground):				ontact		
Ambulance S	Service		Location		1900	s)/Frequency	Level	f Service
AMS		3048 Airport Blvd,	Amarillo, TX 79118		911		✓ ALS	BLS
		E					□ALS	BLS
							ALS	BLS
							ALS	BLS
5. Hospitals:								
Address,		Address,	Contact Tra		vel Time			
Hospital Name		de & Longitude f Helipad	Number(s)/ Frequency	Air	Ground	Trauma Center	Burn Center	Helipad
NWTHS	1501 S Co Amarillo, T		(806) 351-6933	5	10	✓ Yes Level: 3	☐ Yes ☑ No	✓ Yes ☐ No
BSAHS	1600 Walla Amarillo, T		(806) 212-5750		10	✓ Yes Level: 4	☐ Yes ☑ No	✓ Yes ☐ No
						☐ Yes Level:	☐ Yes ☐ No	☐ Yes ☐ No
						Yes	☐ Yes ☐ No	☐ Yes ☐ No
						☐ Yes Level:	☐ Yes ☐ No	☐ Yes ☐ No
In case of an emerge Incident Command wi	ncy, contact ill notify prop	er agency (s) for situa	d . ation.			an Sa		
			for rescue. If assets me: Theresa West, SIT			te with Ajr Ope ature:		ut
8. Approved by	(Safety O	fficer): Name:			Signatu	re:		
ICS 206	NI THE STATE OF	P Page	Date/Time:					

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name: (b) (6) Mitigation and Cleanup	2. Operational Period: Date From: 1-7-2017 Time From: 08:00	Date To: 1-18-2017 Time To: 17:00
3. Safety Message/Expanded Safety Mes	ssage, Safety Plan, Site Safety Plan:	
- Maintain assigned isolation perimeter		
- Use appropriate PPE and Respiratory protection		
- Do not come into direct contact with chemical, SKIN	CONTACT HAZARD	
- No entry into residence without PPE until monitoring	meets EPA requirements	
- RESPIRATORY HAZARD!		
- Review exposure signs and symptoms prior to and a	fter entry	
- Caution there will be environmental condition temper	ature extremes during response.	
- Product has an extreme reaction with water.		
- Ensure all responders have appropriate medical mon	nitoring.	
- Review SDS		
4. Site Safety Plan Required? Yes No Approved Site Safety Plan(s) Located	o □ At:	M And
5. Prepared by: Name: Theresa West	Position/Title: SITL Signatu	ure: Muya Owo
ICS 208 IAP Page 7	Date/Time:	





Storm easing in the West; Significant freezing rain possible from southern Plains to Mid-Atlantic Friday into the weekend

Conditions are steadily improving in California and Nevada. Flooding is still occurring on many rivers, but precipitation is much lighter than in past days. Meanwhile, conditions are coming together for a freezing rain event from the southern Plains to Mid-Atlantic starting Thursday night and lasting through Saturday. Read More >

Hazardous Weather Conditions

- Hazardous Weather Outlook
- . Child Abduction Emergency

En Español

Share

Current conditions at

Amarillo, Amarillo International Airport (KAMA)

Lat: 35.22°N Lon: 101.72°W Elev: 3606f



Humidity 31% Wind Speed SW 12 mph Barometer 29.76 in (1005.8 mb) Dewpoint 22°F (-6°C) Visibility 10.00 mi Wind Chill 48°F (9°C) Last update 11 Jan 7:53 pm CST

Extended Forecast for Amarillo TX Tonight Friday Friday Saturday Sunday Thursday Thursday Saturday Sunday Night Night Night Night Rain/Freezing Rain/Freezing Rain Partly Cloudy Mostly Sunny Mostly Cloudy Chance Rain Rain/Freezing Rain Likely Rain then then Slight Chance Rain Rain Rain/Snow Low: 36 °F High: 60 °F Low: 27 °F High: 38 °F Low: 31 °F High: 36 °F Low: 34 °F High: 40 °F Low: 29 °F

Detailed Forecast

Partly cloudy, with a low around 36. West southwest wind 10 to 15 mph, with gusts as high as 20 mph,

Mostly sunny, with a high near 60. Wind chill values between 32 and 42 early. West wind 5 to 10 mph becoming east southeast in the afternoon

Thursday Night

Mostly cloudy, with a low around 27. Wind chill values between 19 and 24. East wind 10 to 15 mph.

A chance of drizzle or freezing drizzle before noon, then a chance of rain or freezing rain. Mostly cloudy, with a high near 38. Wind chill values between 17 and 27. East northeast wind around 10 mph. Chance of precipitation is 40%.

Rain or freezing rain likely. Cloudy, with a low around 31. East northeast wind 5 to 10 mph. Chance of precipitation is 70%.

Saturday

Rain or freezing rain, becoming all rain after noon. High near 36. East northeast wind 5 to 10 mph. Chance of precipitation is 80%.

Saturday Night

Rain. Low around 34. East wind 10 to 15 mph. Chance of precipitation is 80%.

Rain. High near 40. East wind 10 to 15 mph becoming north in the afternoon. Chance of precipitation is 100%.

A chance of rain before midnight, then a slight chance of rain and snow. Mostly cloudy, with a low around 29. North northwest wind around 10 mph. Chance of precipitation is 40%.

M.L.King Day

Partly sunny, with a high near 41.

Monday Night

Partly cloudy, with a low around 24.

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Forecast Area

Point Forecast:

Amarillo TX

35,2°N 101,82°W (Elev. 3645 ft)

Last Update: 6:35 pm CST Jan 11, 2017

Forecast Valid:

8pm CST Jan 11, 2017-6pm CST Jan 18, 2017

Additional Resources

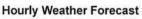
Radar & Satellite Image

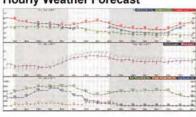
Mostly sunny, with a high near 49.

Tuesday Night Mostly clear, with a low around 27.

Wednesday Sunny, with a high near 52.







Home A Alerts.

☐ Threads ☐ Private Chats ☐ Rooms ► Start a Room Search this room

Amarillo. TX [ORG] / *Amarillo OEM [GROUP] / 01/02/2017 - Hazmat -[ROOM] Map Enter a location IAP Page 10

Current Time

Google

Page 10 of 25

10:20:54

Amarillo Potter Randall OEM has secured from the scene Messages

Map data ©2017 Go Report a map error



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 10-May-2015

Revision date 10-May-2015

Revision Number: 1

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: WEEVIL-CIDE® Tablets, WEEVIL-CIDE® Pellets

Other means of identification

 Item#:
 12U-142

 UN-No
 UN1397

 Synonyms
 Not Available

 Registration number(s)
 70506-13; 70506-14

Recommended use of the chemical and restrictions on use

Recommended use Restricted Use Pesticide. The use of his product is STRICTLY PROHIBITED on single

family and multi-family residential properties, nursing homes, schools (except athletic fields)

, daycare facilities and hospitals.

Uses advised against Activities contrary to label recomendation Non labeled activities

Details of the Supplier of the Safety Data Sheet

Supplier Address

UPI

630 Freedom Business Center

Suite 402

King of Prussia, PA 19406 Emergency telephone number

Company Phone Number

1-800-438-6071

Emergency telephone number

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887 Medical: Rocky Mountain Poison Control Center

(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 2	
Acute toxicity - Inhalation (Gases)	Category 1	
Acute toxicity - Inhalation (Vapors)	Category 1	

Label elements

EMERGENCY OVERVIEW

DANGER

hazard statements

Fatal if inhaled

FATAL IF SWALLOWED Harmful in contact with skin



appearance light grey to Greenish

Physical state solid Pellet/tablet

Odor Garlic like Pure phosphine gas is odorless but a garlic odor might be detected due to a contaminant. Since odor may not be detected under certain circumstances, the absence of a garlic odor does not mean that phosphine gas is absent.

Precautionary Statements - Prevention

Do not eat, drink or smoke when using this product
Do not handle until all safety precautions have been read and understood
Protect from moisture
Wear eye/face protection
Wear protective gloves
Wash hands thoroughly after handling

IF INHALED

Immediately call a POISON CENTER or doctor/physician IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Rinse mouth

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Refer to manufacturer/supplier for information on recovery/recycling

Hazards Not Otherwise Classified (HNOC) OTHER INFORMATION

- · Very toxic to aquatic life
- · May be harmful in contact with skin

3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
Aluminum phosphide	20859-73-8	60	

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures	
11.100.00.00.00.00	

FIRST AID MEASURES

Eye contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact

lenses, if present, after 5 minutes, then continue rinsing eye. Immediate medical attention is

required.

Skin contact Brush or shake off material. Wash contaminated skin with soapy water in a well ventilated

area.

Do not leave contaminated clothing in occupied or confined areas such as car or van.

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Brush or shake off clothes. Allow clothes to aerate prior to laundering. Remove and wash

contaminated clothing before re-use.

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give

artificial respiration, preferably mouth-to-mouth if possible. Keep warm and make sure

person can breathe freely

Ingestion Call a physician or poison control center immediately. Do not induce vomiting without

medical advice. Vomiting may off-gas and release phosphine, which could pose a risk of secondary contamination. Never give anything by mouth to an unconscious person.

Protection of First-aiders Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects Headache. Dizziness. Nausea. Difficulty in breathing. Diarrhea.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician

Aluminim phosphide- This product reacts with moisture from air, water, acids and many other liquids to release hydrogen phosphide (phosphine) gas. Symptoms of severe poisoning may occur within a few hours to several days. Phosphine poisoning may result in pulmonary edema, liver elevated serum GOT, LDH and alkaline phosphatase, reduced prothrombin, hemmorhage and jaundice, and kidney hematuria and anauria. Pathology is characterized by hypoxia.

Mild inhalation exposure causes malaise, ringing of ears, fatigue, nausea, and pressure in the chest, which is relieved by removal to fresh air. Moderate poisoning causes weakness, vomiting, and pain just above the stomach, chest pain, diarrhea and dyspnea. Symptoms of severe poisoning may occur within a few hours to several days, resulting in pulmonary

edema and may lead to dizziness, cyanosis, unconsciousness and death.

In sufficient quantity, phosphine affects the liver, kidneys, lungs, nervous system, and circulatory system. Inhalation can cause lung edema, and hyperemia. Ingestion can cause lung and brain symptoms but damage to the viscera is more common. Phosphine poisoning may result in (1) pulmonary edema, (2) liver elevated serum GOT, LDH and alkaline phosphatase, reduced prothrombin, hemorrhage and jaundice and (3) kidney hematuria and anuria. Pathology is characterized by hypoxia. Frequent exposure to subacute concentrations over a period of days or weeks may cause poisoning. Treatment is symptomatic.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide (CO2). Water. Foam.

Aluminum phosphide is not flammable; however, it reacts with water to produce hydrogen phosphide (phosphine) gas which may ignite spontaneously at concentrations above the LE of 1.8% v/v.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours.

Aluminum phosphide: Hydrogen phosphide (phosphine)/air mixtures at concentrations above the lower flammable limit may ignite spontaneously. Ignition of high concentrations of hydrogen phosphide can produce a very energetic reaction. Explosions can occur under these conditions and may cause personal injury. NEVER allow build up of hydrogen phosphide to exceed explosive concentrations. Containers of metal phosphides should be opened in open air and never in a flammable atmosphere. Do not confine spent or partially spent dust as slow release of hydrogen phosphide may result in formation of an explosive atmosphere. Spontaneous ignition may occur if large quantities of aluminum phosphide are piled in contact with liquid water. Fires containing metal phosphides or hydrogen phosphide will produce phosphoric acid by the following reaction: 2PH3 + 4O2 = H2O + P2O5 = 2H3PO4.

Hazardous combustion products Phosphine gas.



Explosion data

Protective equipment and precautions for firefighters

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Avoid contact with the skin and the eyes. An accidental spill/release of material may produce high levels of gas. A NIOSH/MSHA approved full face gas mask with phosphine cartridge of SCBA must be employed during wet deactivation of partially spent material. Wear protective gloves and clothing. Wear protective gloves/clothing and eye/face protection.

Environmental Precautions

Environmental precautions

Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinenet environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up

Damaged aluminum foil pouches should be transferred to a sound dry metal cotainer and immediately seal and properly label as aluminum phosphide. Do not use water at any time during clean-up. Damaged aluminum flasks should be transferred to a sound dry metal container and immediately seal and properly label as aluminum phosphide.

7. Handling and Storage

Precautions for safe handling

Handling

Use of this product is STRICTLY PROHIBITED on single and multifamily residential properties and nursing homes, schools (except athletic fields) daycare facilities and hospitals. Keep out of reach of children. Do not eat, drink or smoke when using this product. Remove all sources of ignition. Wear personal protective equipment. It is recommended that the gas-tight, aluminum flask be opened in open air or near a fan, which exhausts outside immediately. Never open in a flammable atmosphere as the product may, although rare, flash. When opening, point container away from the face and body. These precautions will reduce the applicators potential for exposure to hydrogen phosphide (phosphine) gas. Do not expose product to atmospheric moisture any longer than is necessary.

Conditions for safe storage, including any incompatibilities

Storage

Keep out of the reach of children. Protect from moisture. Store in original container.

incompatible materials

Water. Hydrogen phosphide may react with certain metals (gold, silver, brass, other precious metals and their alloys) and cause corrosion especially at high temperatures and relative humdities. Small electric detectors, brass sprinkler heads, batteries and battery chargers, forklifts, temperature monitoring systems, electrical switch gear, communication devices, computers, calculators, watches and other electronic equipments shoul dbe protected or removed before fumigation.

8. Exposure Controls/Personal Protection

Exposure guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering controls

Ensure adequate ventilation, especially in confined areas. Measurements of the concentration Aluminium phosphide in the air must be provided and used to verify the

concentration in the atmosphere.

Personal protective equipment

Eye/Face Protection

Skin protection Respiratory protection Use eye protection to avoid eye contact. Where there is potential for eye contact have eye

flushing equipment available. Safety glasses with side-shields.

Wear protective gloves/clothing. Socks and footwear.

A NIOSH/MESA approved full face mask with approved canister for phosphine may be employed for concentrations up to 15 ppm. At concentrations above that level, or when concentrations are unknown, NIOSH/MESA approved SCBA or equivalent must be worn.

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state appearance

solid Pellet/tablet light grey to Greenish

Odor

Remarks/ • Method

Garlic like Pure

phosphine gas is odorless but a garlic odor might be detected due to a contaminant. Since odor may not be detected under certain circumstances, the absence of a garlic odor does not mean that phosphine gas is absent.

color No information available

Property

Melting point/freezing point Boiling Point/Range

Flash Point

Evaporation Rate flammability (solid, gas) Flammability limit in air Upper Flammability Limit

Lower Flammability Limit vapor pressure **Vapor Density** Specific gravity

Water solubility Solubility in Other Solvents Partition coefficient: n-octanol/waterNo information available

Autoignition temperature decomposition temperature Viscosity, kinematic Dynamic viscosity **Explosive properties** Oxidizing properties

OTHER INFORMATION Softening point molecular weight

VOC Content

No information available No information available

No information available

No information available No information available

No information available No information available No information available No information available

2 85 No information available No information available

No information available No information available No information available No information available

No information available No information available

No information available No information available No information available

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Pellets

density
Bulk density

No information available No information available

10. Stability and Reactivity

Reactivity

Water reactive

Chemical stability

Stable under recommended storage conditions.

Reacts with water to form hydrogen phosphide (phosphine) gas.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerisation does not occur.

Conditions to avoid

Exposure to moisture. Protect from water.

incompatible materials

Water. Hydrogen phosphide may react with certain metals (gold, silver, brass, other precious metals and their alloys) and cause corrosion especially at high temperatures and relative humdities. Small electric detectors, brass sprinkler heads, batteries and battery chargers, forklifts, temperature monitoring systems, electrical switch gear, communication devices, computers, calculators, watches and other electronic equipments shoul dbe protected or removed before fumigation.

Hazardous decomposition products

Phosphine gas.

11. Toxicological Information

Information on Likely Routes of Exposure

Inhalation

Respiratory, gastrointestinal, and nervous system symptoms were noted in workers exposed to mean phosphine concentrations less than 10 ppm.

Eye contact

Irritating to eyes.

Skin contact

Reacts, PH3 generated is slightly soluble.

Ingestion

MAY BE FATAL IF SWALLOWED.

Component Information

Aluminum phosphide -

Acute oral LD50 = 11.5 mg/kg

Acute dermal LD50 = >5,000 mg/kg (1 hr exposure)

Sensitization = Not a sensitizer Hydrogen phosphide (phosphine) gas -

Inhalation = LC50 190 ppm (1 hour)

Information on Toxicological Effects

Symptoms

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

sensitization Mutagenic effects Carcinogenicity No information available. No information available. Aluminum phosphide:

Chronic effects = Not expected to produce target organ effects

Mutagenicity = No data

Carcinogenicity = Not classified as a carcinogen by IARC, OSHA, or NTP

Reproductive and Developmental Effects = Not expected to produce reproductive or

developmental effects. Hydrogen phosphide (phosphine) gas -

Chronic effects = In a 2-year study, rats were exposed to 48-90 g/m³ of feed and no overt

systemic toxicity was noted.

Mutagenicity = Increased frequency of cells with structural chromosomal aberrations noted

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in an invitro cytogenetic assay with Chinese hamster ovary cells.

Carcinogenicity = Not classified as a carcinogen by IARC, OSHA or NTP

Reproductive and developmental effects = Not expected to product reproductive or

developmental effects.

Reproductive effects

Not Available.

STOT - Single Exposure STOT - repeated exposure

No information available. No information available.

Target organ effects

Respiratory System, EYES, skin.

Aspiration hazard

No information available.

Numerical Measures of Toxicity - Product information

ma/l

LD50 Oral LD50 Dermal LC50 Inhalation: 11.5 mg/kg (rat) > 5000 mg/kg (rat) Inhalation LC50 190 ppm

12. Ecological Information

ecotoxicity

Highly toxic to wildlife

Persistence/Degradability

No information available.

Bioaccumulation/Accumulation

Does not bioaccumulate.

Other Adverse Effects

No information available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method

Follow label for proper disposal instructions.

Contaminated packaging

Refer to product label.

Chemical name Aluminum phosphide

RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
P006			
	·		<u> </u>

Chemical name

Aluminum phosphide

RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
	P006		

14. Transport Information

DOT

UN-No

Aluminum flasks are covered under DOT special permit DOT -SP 13307

the following description is to be used:

UN3048

Aluminum phosphide

6.1 PG I

When shipped in cases the following description is to be used:

UN1397

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Hazard class 4.3 **Subsidiary class** 6.1 PG I Packing group Reportable Quantity (RQ): 100 lbs

TDG

ICAO

UN-No 1397

Proper shipping name Aluminum phosphide

Hazard class 4.3 Subsidiary class 6.1 PG I Packing group

IATA

1397 **UN-No**

Proper shipping name Aluminum phosphide

Hazard class 4.3 Subsidiary class 6.1 PG I Packing group

IMDG/IMO

1397 **UN-No**

Aluminum phosphide Proper shipping name

Hazard class 4.3 Subsidiary class 6.1 Packing group PG I EmS No. F-G, S-N

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word DANGER!

PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO **Ventilation Control**

PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA

WORKER PROTECTION STANDARD 40 CFR PART 170.

Restricted Use Pesticide. Due to inhalation toxicity of phosphine gas. Keep out of Reach of Children. May be fatal if swallowed. May be fatal if inhaled. Toxic to wildlife.

The use of this product is STRICTLY PROHIBITED on single family and multi family residential properties, nursing homes, schools (except athletic fields), daycare facilities and hospitals.

Granules or dust can be fatal if swallowed. When sealed container is opened, allowing material to come in contact with moisture, water or acids, toxic phosphine gas will be released. Phosphine may ignite spontaneously at levels above its lower flammable limit of 1.8% v/v, it is important not to exceed this concentration. Ignition of high concentrations of phosphine can produce a very energetic reaction. NEVER ALLOW build up of phosphine to exceed concentrations. Do not confine spent or partially spent granules, as the slow release of phosphine may result in formation of an explosive atmosphere. Opening pouches in open air may produce a flash due to phosphine build up.

International Inventories

USINV Not determined DSL/NDSL Not determined EINECS/ Complies **ELINCS**

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ENCS Does not comply
China Complies
KECL Complies
PICCS Complies
AICS Complies
TSCA Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values		
Aluminum phosphide - 20859-73-8	1.0		

SARA 311/312 Hazardous

Categorization

Acute health hazard yes
Chronic health hazard NO
Fire hazard yes
Sudden release of pressure hazard No
Reactive Hazard yes

Chemical name	RQ	CERCLA EHS RQs	RQ
Aluminum phosphide 20859-73-8	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

CERCLA				
Component	RQ			
Aluminum phosphide	100 lb			
20859-73-8 (60)				

SARA Product RQ 0

Component	CERCLA EHS RQs
Aluminum phosphide	100 lb
20859-73-8 (60)	

RCRA			
Component	RCRA - D Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Aluminum phosphide 20859-73-8 (60)		P006	

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Aluminum phosphide	Under further evaluation		Х	
20859-73-8 (60)	as sole active ingredient			
	for agricultural crop uses No mixtures registered.		1	

State Regulations

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Aluminum phosphide	X	X	X		

International regulations

U.S. EPA Label information
EPA Pesticide registration number 70506-13 & 70506-14

16. Other Information

Instability 0 Physical hazard -NFPA **HEALTH** 3 flammability 4

Preparation Date Revision date **Revision Summary** Update to GHS format 10-May-2015 10-May-2015

End of MSDS

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Material Safety Datasheet

CAS No NA

Date Issued: 27/06/2012 Bovitraz EC 12.5% Dip

Company Details

Name Bayer (Pty) Ltd Animal Health Div

Emergency Tel +27(0)826517327

Address 27 Wrench Road

<u>Tel</u> +27(0)119215742

Isando

<u>Fax</u> +27(0)119215745

1600

South Africa

1. Product and Company Identification

Trade / Commercial Name Bovitra

Bovitraz EC 12.5% Dip

Chemical Name

Formula Amitraz

Chemical Family Amitraz, aromatic hydrocarbons

Synonyms

<u>Un No</u> <u>Hazchem Code</u> N/A ERG No 0 EAC 0

2. Hazards Identification

Harmful if swallowed (R22)

Do not breathe vapour. Avoid contact with skin. If swallowed do not induce vomiting; seek medical advice immediately and show this container or label.

May cause lung damage if swallowed. Safety Phrases Do not breathe vapour. Avoid contact with skin. If swallowed do not induce vomiting; seek medical advice immediately and show this container or label.

3. Composition

Hazardous Components HAZARDOUS SUBSTANCE

NON-DANGEROUS GOODS

Contains:

Amitraz* 12.5 %

Solvent naphtha (petroleum), heavy aromatic >60%

* Amitraz ia an amidine; M,N-bis(2,4-dimethylphenyliminomethyl)methylamine

4. First Aid Measures

<u>First Aid Skin</u>

Remove contaminated clothing. Wash affected area immediately with soap and

water. Seek medical attention if required.

General: Remove victim from contaminated area. If there is a risk of unconsciousness, position and transport in a stable lateral position. Remove soiled or soaked clothing immediately.

Advice to doctor: See Section 11. Onset of clinical signes is within 4-6 hours. There is no specific antidote for amitraz. Apply standard decontamination procedures and symptomatic treatment considering possible solvent effects as described below.

First Aid Eyes Flush eye immediately with lage amounts of water or normal saline,

occasionally lifting eyelids, until no evidence of chemcal remains. Seek

medical attention if eye irritation persists.

First Aid Ingested If vomiting occurs keep head lower than hips to help prevent aspiration. Seek

medical attention if required.

First Aid Inhalation Inhalation of this product is a risk. In this event remove from exposure and

perform atificial respiration if necessary.

5. Fire Fighting Measures

Extinguishing media: Sprayed water jet, foam, dry powder, CO2, sand.

Fire and explosion hazards: Combustible product. Product has a flash point of > 95 °C.

Hazardous combustion products: Thermal decomposition products include hydrogen cyanide, carbon monoxide, and nitrogen oxides.

Fight fire in early stages if safe to do so. Wear respiratory protection.

Well ventilated areas: full face mask with combination filter, (offers no pretection against carbon monoxide).

Enclosed premises: respirator with independent air supply.

Contain fire-fighting water.

6. Accidental Release Measures

Use any personal protective equipment listed in Section 8.

Prevent spillage from spreading or entering soil, waterways and drains.

Take up with absorbent material such as sawdust, peat or chemical binder. Fill material along with any contaminated soil etc., into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable container. Spread hydrated lime over the affected area. On completion of clean-up remove and wash all protective clothing and equipment with detergent

and water. Place cleaning materials into the same container.

Do not eat, drink or smoke during clean-up operation.

7. Handling And Storage

Pour the product using a funnel or other equipment to avoid splashing and glugging. Suitable container materials:

HDPE, LDPE

To maintain product quality, store below 30 degrees Centigrade Store away from food, drink, feed, pets and uniformed prersons. Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits N/A

Controls N/A

<u>Personal Protection</u> Wear suitable protective clothing to prevent contamination of skin, eyes and

personal clothing.

9. Physical & Chemical Properties

Physical: State Clear liquid Colour: Yellow to yellow-brown Odour: Slight characteristic smell Boiling Point: Boiling range 215-300°C Solidifying point: Not available

Density approx: 1.00-1.02 kg/L at 20°C Vapour Pressure: 0.005 hPa at 20°C (amitraz)

Viscosity: Not available

Solubility in Water: Emulsifiable

pH: Not available Flash Point: >95°C

Ignition Temperature: Not available Explosive Limits: Not available

10. Stability And Reactivity

Conditions to Avoid

Avoid oxidising agents

Incompatible Materials

None

Other

Always store in a securely closed and properly labelled container.

Store below 30 degrees Centigrade

Keep away from food, feed, pets and uniformed prersons.

Keep out of reach of children

Thermal decomposition products include hydrogen cyanide, carbon monoxide,

and

nitrogen oxides.

11. Toxicological Information

Oral LD 50 Rat 1 000 - 2 000 mg/kg (of amitraz) Dermal LD 50 Rat > 2 000 mg/kg (of amitraz)

Inhalation LC50 (rat) 65 mg/L (6h)(dust)(amitraz)

Eye: may irritate the eye Skin: may irritate the skin

None of the ingredients of the formulation have been shown to produce reproductive or teratogenic effects.

None of the ingredients of the formulation have been shown to produce mutagenic effects.

Amitraz has been shown in animal tests to have no carcinogenic potential.

Other ingredients are not classified as carcinogens.

12. Ecological Information

Octanol/Water Partition log P = 5.5 at pH 5.8 and 25°C Co-efficient Ecotoxicity

Fish toxicity

amitraz

LC50 0.74 mg/L (96h) Rainbow trout (Salmo gairdneri)

LC50 0.45 mg/L (96h) Bluegill (Lepomis macrochirus).

Daphnia toxicity

amitraz

LC50 0.035 mg/L (48h) Water flea (Daphnia magna)

Toxic to fish and horses. Do not contaminate ponds, waterways or drains with product or used containers.

13. Disposal Considerations

Disposal Method Product

After Intended Use

Disposal of unwanted spraywash should be into a pit of adequate size on level ground and away from watercourses, drains, dams, and tree roots. Triple or (preferably) pressure rinse empty containers, adding rinsate to spray wash. Do not dispose of undiluted chemicals on site. If not available bury containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

After spill or accident

Dispose of sealed containers at an approved local waste disposal site.

Disposal Method Packaging

Rinse empty container three times with a volume of water equal to at least one tenth of that of the container and add the rinsings to the contents of the dip. Thereafter perforate and flatten the container, and bury it in an area reserved for this purpose as described above, under the section entitled Disposal method product.

14. Transport Information

 ERG No
 0
 EAC
 0

 ARD/RID Class
 NR
 ARD/RID Hazard ID No
 NR

 IMDG-Shipping Name
 NOT CONTROLLED SUBSTANCE
 NOT CONTROLLED SUBSTANCE

IMDG Code N/A IMDG-Packaging Group N/A

Marine Pollutant No

Class

Subsidiary Risks None

15. Regulatory Information

EEC Hazard Classification

Risk Phases R22 Harmful if swallowed

Safety Phases S2 "Keep out of reach of children"

National Legislation National Road Traffic Act, 1996 (Act 93 of 1996)

Fire Brigade Services Act, 1987 (Act 99 of 1987)

Occupational Health and Safety Act, 1993 (Act 85 of 1993)

NON HAZARDOUS FOR TRANSPORT

16. Other Information

Reason for Alteration: General update. Revision 4. Revision date: 20 March 2008

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properness of the product.:

LAST PAGE

All information is given in good faith but without guarantee in respect of accuracy & no responsibility is accepted for errors or omissions or the consequences thereof.